

ACUTE DELIRIOUS MANIA.¹

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Synonyms: Acute delirium, Acute delirious insanity, Hyperacute mania, Typho-mania, Delirium acutum, Délire aigu, Delirium grave, Phrenitis, Bell's disease, Delirious mania, Mania gravis.

Dr. Benjamin Rush, of Philadelphia, in his work "The Mind," dated 1825, speaks of mania as sometimes combined with phrenitis. He describes symptoms which we would class as fever, and says that here excitement is abstracted from the muscles and the patient usually confined to bed. He gives the name phrenia mania to it, and states it occurs most often after parturition. Luther Bell called the disease typho-mania. Regis, in his work dated 1894, says it lacks a definite position in the list of mental diseases. He considers it as the highest degree of mania, of which it forms, by its peculiar characters, a special variety. He claims it to be symptomatic, that is, connected with various morbid states as the puerperal, general parietic, alcoholic, etc. Again, it is claimed as a mode of termination of acute mania, and it is so that Clouston classes it. He places it as the third stage of common acute mania and one, he says, that does not occur in many cases if properly treated. Most authorities in psychological medicine, however, give it a distinct place by itself in the list of mental diseases.

Kellogg in his recent work states that its prompt onset, violent and brief course and fatal termination in most instances, justify the opinion that it is a distinct type of mental disease of toxic or infectious origin. This, I think, is the view most generally accepted to-day, and one that coincides with the teachings of modern bacteriological and biochemical theories.

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Definition: An acute form of mental trouble, probably of infectious origin, usually of very sudden onset and course, attended with increased bodily temperature, and marked by delirium with sensory hallucinations, resembling the mental state seen in the severest cases of infectious febrile diseases; marked by incoherency, restlessness, refusal of food, general resistance to environments, loss of memory, great prostration and rapid bodily wasting; terminating in a large proportion of cases in coma and death within a fortnight of the onset of the maniacal excitement.

This trouble seems to depend on severe pathological changes, and while the frenzy, incoherency and its other symptoms may only seem to be a higher order of simple acute mania, there are bodily signs which indicate severe cerebral changes, and these are probably infectious in character.

Schüle says that the symptoms of spurious maniacal furor mark the first period of the disease, and that its second stage is that of severe cerebral exhaustion. In short, we have a condition of the most overwhelming disorder of the mind.

Predisposing Causes: The prime of life, between 25 and 40, is generally the period in which this trouble occurs. It is more frequent in women than in men, probably on account of the puerperal and climacteric states, which often bear a causal relationship to it.

Some neurotic inheritance is found in most cases, perhaps as direct hereditary insanity or as the unstable nervous organization shown by a hysterical or nervous temperament. Most cases also show some physical or nervous exhaustion from overwork or overstrain. The stresses of modern life, insufficient food, worry, intemperate habits, etc., all play a part in causation.

In considering the more active or *exciting causes*, we find that added to these predisposing conditions there is some severe moral or physical upsetting of the system. It sometimes follows fever, such as typhoid, especially if the case has been severe and with delirium. It may also occur consecutive to inflammatory diseases, as pneumonia and acute rheumatism, or after cystitis, diarrhea and diabetes. A severe alcoholic debauch may be the immediate occasion of the attack. As mentioned

before it may be induced by the puerperal state, especially where there are septic or complicated labors. This cause is not found as often as before the days of aseptic obstetrics, and apparently due to this fewer cases of acute delirium are now seen. Heat, sunstroke, injuries, thickening of the pia, surgical operations, or the effect of the anesthetic, are all to be considered. In puerperal cases, in those cases following suppurative inflammations of other parts of the body, or in acute infectious diseases, we can easily trace a source of infection.

In many other cases distorted metabolism, constipation and autointoxication are a large causative element. Mental or psychical shocks are common in leading to a mental breakdown, and in bringing on this disease—such for example as any painful emotion, fright, quarrels, money losses, deaths and griefs.

Course: Nearly always there is an initial period of mental depression of a few days' duration, and general painful feelings of mind and body are felt; there are a restless insomnia and an incipient melancholia. This initial period can be absent or so slight or short as to escape observation, and the patient become suddenly delirious; perhaps awake from sleep in that condition. These cases with sudden outbursts usually have their origin in some severe mental cause, as shock or grief, especially in those predisposed.

Now we have what may be called the active stage of the disease. This comes on suddenly, perhaps within an hour or during sleep. There is great agitation, an incessant psychomotor activity and excitement, and great expenditure of physical and cerebral forces. Accompanying this the temperature is raised, perhaps to 105° , there is a rapid pulse, growing weak, a coated dry tongue, eyes are wild with a bewildered terrified look, there is marked incoherency, both mental and motor, and exaggerated reflexes. At this stage we may have remissions of the excitement lasting a few hours, and possibly leading to some sleep.

Then perhaps improvement occurs by slow defervescence of the symptoms lasting over several weeks, and going on to a long convalescence which may lead to recovery or to a more or less demented condition of mind.

The usual course, however, is for the fever and concurrent symptoms to increase in severity, and death to occur between the fifth and tenth days. The excitement gives place to a condition of stupor or coma with typhoidal symptoms and the most extreme physical and mental depression. The patient may die suddenly from cardiac failure, or slowly from physical and nervous exhaustion. The majority of cases die in the delirious period from exhaustion after an illness of a few days; in others the excitement continues unabated for four or five weeks, stuporous symptoms increase, and the patient dies in coma.

Symptoms: There is great restlessness and muscular incoherency, purposeless or rythmical movements of arms, limbs and face, grimaces and grinding of teeth, swinging and swaying motions, and often general violent excitement. The patient appears terrified, and the eyes are wild. There is great mental excitement with rapid incoherent speech, which soon resembles a confused jargon. This speech can hardly be called delusional, so changeable is it, but nevertheless it shows a prevailing type as of fear, religious dread or humor. The patient may appear hilarious or panic-stricken. There are acute hallucinations and illusions of all the senses, of absurd or even rapidly changing violent types. In short, there is the typical picture from which the disease is properly named acute delirium. It would seem as though there is an automatic condition of mind, as though the action of the higher controlling centers is suspended; this resulting in great overaction of the lower centers. These lower automatic centers run riot, causing constant repetition of incoherent motions and speech, not of a dangerous kind but marked in frequency, number and variety, and not of such a character as an effort of the will could keep up. In this connection it might be possible to localize early the part of the brain which is most affected, according as the symptoms point to muscular trouble or to the optical, aural or other centers.

A striking tendency is that of tearing and destroying clothing, and hence go naked, or if in bed, by continual kicking of legs and throwing of arms to displace and remove the clothing. In this connection a remarkable insensibility to cold is displayed by these patients.

Blandford says that these patients do not refuse food as such, as they are not able to appreciate its nature, but oppose all attempts at care and nursing. Others claim the refusal is due to delusions, pain or spasm about the jaws, etc. Protracted loss of sleep is prominent, and what little takes place is unquiet and easily disturbed. However, some sleep—although very little may suffice—is needed to keep up life during this remarkable discharge storm of nervous energy, hence efforts to induce sleep must be earnestly persevered in. One case spoken of by Spitzka slept only one hour in eight days, then slept five hours, and from then on began to convalesce. Women seem able to withstand the loss of sleep for a longer time than men.

The temperature rises to 100, 101 or even 105 or 106 degrees. The pulse becomes weak, soft and frequent, it may reach 130, and the sphygmograph shows extreme cardiac enfeeblement. The reflexes are exaggerated at the start, but later absent. As the case progresses there are diarrhea and involuntary passage of feces and urine. Great muscular wasting and exhaustion and sordes about the mouth appear, the face is haggard and pinched, there are extreme subsultus and the other symptoms of the extreme typhoidal state. Abscesses and cellulitis are prone to occur, and would seem to be without detectable source of infection.

From October 1, 1888, to September 30, 1898, there were admitted to the Hudson River State Hospital a total of 5,359 patients, of which 58 were diagnosed as acute delirious mania, being a proportion of about one to one hundred. Of the 58, 24 died, 13 recovered, and the rest either improved or are in the hospital still; some being now in a chronic maniacal or demented state.

Case I. Admitted December 19, 1898. Female, aged 30, married, had four children; youngest, one and a half years old. Had an attack of insanity five years ago. No inherited tendencies. Cause of present attack given as poverty, overwork, and worry. Is very poor and patient's husband recently had an attack of typhoid fever. Attack began a week ago, and patient is now very incoherent, violent and delirious, has sordes on her teeth, sings, shouts, kicks and squirms. Has slept very little in past week, and is now very feeble physically. Re-

maintained in about this condition with temperature ranging from 100° to 102° for a week after admission, and showed a most complete typhoidal state. Then, from what appeared to be a very slight prick of a finger, a cellulitis of the hand and arm developed, and lasted about ten days, and was accompanied by a temperature of 100° to 104°. At first patient required the protection sheet and sedatives, but in about six weeks she showed improvement and became less active physically.

The following is an example of her incoherency March 1, 1899, and is very typical of these cases: "A bottle of cod liver oil, by God, candy, black velvet, cream, my face is pretty near, hot, angel, near, I can't tell a little, stay there, cream, change it, here, now, where, hold on now," etc., this and much more being said at a very rapid rate, with a tendency for words and phrases to be repeated.

April, 1899. She was quieter, temperature was normal, she was emaciated and in very poor physical condition. Her lungs appeared weak from the great physical strain.

July, 1899. Much improved mentally and physically, childish. Helps about the ward. Will probably recover completely.

Case II. Female. Age 22. Single. Occupation, housework. Temperate in habits. Mother said to have had fits. Has been sick for some time with uterine trouble, and is in a nervous state of mind. Two weeks before admission to the hospital, the house in which patient lived was shattered by lightning, and she suddenly became violent and jumped out of the window, and seizing the first man she met told him he must kill her. Partially disrobed in presence of family physician, danced, sang and screamed. When admitted to the hospital had on handcuffs, had kicked off her shoes *en route*, and was barefooted. She claimed she was in heaven. Tongue and lips dry and fissured. Pulse 120 and feeble. Was very delirious. Was put to bed and in a protection sheet. Very noisy, delirious, weak, and in a critical condition. Temperature ranged from 99° to 101°. Had to be fed with tube. Ten days after admission required whiskey, glonoin and strophanthus. Continued in this state for several weeks, had severe diarrhea and insomnia, which required twenty-five grains of chloral each night. She received forced feeding and slowly began to gain strength and become quiet. Continued to improve and was discharged recovered seven months after admission.

Case III. Male. Age 45. Single. Employed in railroad signal tower. Hereditary influences denied. Twenty-five years ago had an attack of brain fever, which lasted three weeks and was supposed to have been caused by sunstroke. He has

worked steadily since, but has often complained of severe pain in head. Six days before admission to the hospital, while working in a hay field, he became suddenly ill, had severe pain in head and became violent and excited. However, he went to work that evening at six in the signal tower, but two hours later he became very violent, kicked down the door and smashed things in general. Was taken home, where he destroyed everything he could lay his hands on. Developed delusions of poisoning and refused to eat. On admission to the hospital was very incoherent, delirious and in a marked typhoidal state. These symptoms increased in spite of forced feeding, abundant sedatives to control agitation and free stimulation. He grew suddenly weaker and died in ten days after admission. He had two attacks of hematemesis during the six hours before death.

Pathology: First there is marked hyperemia and active congestion of the brain, which represents the excited stage of the symptoms. This is succeeded by cerebral edema with venous stasis and exudation of the blood elements, which cause the pressure symptoms. The membranes are congested, swollen and sometimes show adhesions. The elevation of temperature may be, in part at least, due to direct disturbance of the cerebral cortex or of the heat centers. The lungs are in a state of hypostatic congestion and perhaps consolidation. In fact, there is engorgement of all the internal organs. The heart is flabby, pale and degenerated, the blood thin, dark and watery, and the muscles wasted. Reports of the finding of micro-organisms in the blood have been made.

Prognosis: It is both important and difficult to make an early prognosis. The case must be considered as to whether it is to last only a few hours or days; if so only home treatment may be required, and this may be the best; or whether it is to have a duration of weeks or months, and hence to be beyond home care and demand that afforded in hospitals. Attention must be given to the character, constitution, both mental and physical, to the past history of the patient, the causes of the present trouble and the symptoms observed.

As a rule the more gradual the onset, the slower the course and ending. The severity of the symptoms must also be considered. The less the insomnia, the delirium and the incoherency, and the more and the longer the periods of compara-

tive quiet, the brighter is the outlook. Another thing to consider is the physical condition, and to what degree of severity is the system poisoned; for it requires vital force and energy to resist the products of disease.

The death rate is given by writers as between 50 and 75 per cent. of the cases attacked, and the average duration of life in fatal cases as from one to three weeks.

Differential Diagnosis: Its start helps distinguish it from common acute mania. Ordinary maniacal or melancholic frenzy follows the usual typical symptoms of these troubles, but here there is either a most sudden onset, or a short initial stage of a peculiar impaired unconsciousness. It is much more intense in the severity of its symptoms than ordinary mania. It has marked reduction of object-consciousness with delirium and absolute incoherency. There is the most utter indifference and oblivion to environments. Its course is much more rapid; and uncomplicated cases of ordinary acute mania, unless there is some contributing debility or weakness, usually tend to almost certain and rapid recovery. This is not so in acute delirium, for death is the rule in the majority of cases.

Acute Alcoholism: Here perhaps, the patient is simply mad drunk and frenzied, and if we let him sleep it off he is all right. It is a serious mistake to commit these patients to an institution for the insane, as is often done. The stigma of insanity should never be attached to anyone when not necessary. It should be a rule with every physician never to sign a commitment certificate when the person is under the influence of liquor.

Delirium Tremens: These cases are short in duration. There is a coarse tremor, a busy restless fumbling, and a different class of hallucinations and delusions. These latter are of a terrifying nature, and the patients often see all sorts of imaginary animals and objects.

In fevers, pneumonia, etc., the delirium is of a different nature, and there is also the history of the case and its special symptoms to help us. The same can be said of acute brain diseases, meningitis, etc., and here we have the special train of symptoms indicative of brain trouble, not to mention excessive pain, etc. Cases of meningitis are seen that are most difficult to differentiate from acute delirium.

Those in institutions which care for the insane occasionally see cases of low delirium of a melancholic nature. They are depressed but too delirious to be easily called acute melancholia, and still we hesitate to classify them as acute delirious mania. It is for this reason that I prefer the name of acute delirium, for it embraces all these cases. Blandford in discussing acute delirious mania mentions cases in which the patients are violent, sleepless and delirious; have religious and horrible delusions, and most obstinately refuse food, as though melancholic. This is not a mere passive resistance, but force must be used to overcome it in order to feed the patient. He says that the malady merits the name of acute melancholia rather than acute mania. Schüle speaks of a melancholia form of acute delirium, whose symptoms are said to be the very reverse of the maniacal type.

Treatment: The room should be well ventilated, darkened and cool (not over 60° F.), the windows out of reach of the patient, or else protected, and the bed single with a strong protection, or restraining sheet placed over the patient. In this way they can be kept in bed with the least violence, for of course, as in all severe cases of acute illness, a recumbent position must be insisted upon. Most careful nursing is required through the sleepless and violent stage, as the agitation must be restrained and strength supported, so that death will not occur from exhaustion.

Beware especially of the onset, when violence may come on suddenly and skilled attendants must be on hand to control the patient. Avoid the presence of near relatives as much as possible. Plentiful forced feeding is needed: Milk, eggs, minced beef, fruit juices, etc. Plenty of water should be given, or, in summer, lemonade. A pint of cream a day favors sleep and prevents constipation. Best withhold alcoholic stimulants till absolutely required, as in the latter stages, as in the early, they often increase the excitement. Chloral induces sleep and is one of the most useful drugs, especially if combined with sodium or potassium bromide. Trional and sulphonal, especially trional are of great value in bringing on sleep and controlling the excitement. Opium must be used with care, for often there is more excitement after administering it, and it

may increase the poisoning of the system; however, a full dose of morphine may at times be useful in obtaining quiet. Ergot is to be thought of early. Packing in a wet, cold or hot sheet may induce sleep, and cold sponging, full tub baths or ice packs, are indicated for the fever. A dose of calomel or castor oil early is good, and laxatives and intestinal antiseptics are of value to prevent and attenuate the autointoxication, as often there is history of more or less prolonged constipation.

247. ZUR ENCEPHALITIS PONTIS DES KINDESALTERS, ZUGLEICH EIN BEITRAG ZUR SYMPTOMATOLOGIE DER FACIALIS UND HYPOGLOSSUSLÄHMUNG (Contribution to Encephalitis Pontis of Childhood, and also to the Symptomatology of Facialis and Hypoglossus Paralysis). H. Oppenheim (Berliner klin. Wochenschrift, No. 19, May 8, 1899, p. 405).

In this case reported by Oppenheim, paralysis of the left facialis and hypoglossus developed acutely in early childhood after an attack of convulsions and unconsciousness lasting several days. The paralysis partly disappeared later and some atrophy of the affected muscles developed. In an examination made eighteen years afterwards, the muscles innervated by the left facial and hypoglossal nerves were found partially paralyzed and atrophied, fibrillary tremors existed, and the electrical irritability in the left facial distribution was quantitatively diminished. A cerebral lesion probably developed early in childhood. The paresis could not be regarded as the remains of an old hemiplegia, because the muscles affected were the ones usually restored before those of the extremities in hemiplegia. The atrophy, fibrillary twitching, quantitative diminution of the electrical response, and the exaggeration of the knee-jerk on the side opposite to that affected in the face, were regarded as contrary to the diagnosis of "fragmentary hemiplegia." Convulsions and unconsciousness lasting several days and preceding the paralysis made the diagnosis of neuritis doubtful. The case was believed to be one of pontile encephalitis—a disease which has not received a great amount of attention, although there can be no doubt that the pontile or bulbar form of infantile paralysis exists. This diagnosis would explain the exaggeration of the knee-jerk on the side opposite to the affected facial muscles. All the muscles innervated by the left facial nerve were not equally paretic, but those of the highest functional importance (orbicularis palpebrarum, orbicularis oris) had recovered their power. The fibers of the platysma myoides near the median line were active, while the lateral fibers of this muscle were paralyzed. The muscles of the facial nerve situated near the median line (mentalis, quadratus menti, orbicularis oris, corrugator) were easily stimulated by the electric current applied to the sound side—by a current insufficient to cause contraction of these muscles when applied to the left side, or distinct contraction of the sound muscles when applied to the right side. Oppenheim's explanation was that the facial muscles near the median line were innervated from the facial nerve of the opposite side.

SPILLER.